

ABSTRACT OF THE DISCLOSURE

A heating apparatus for performing heat treatment on a wafer applied with a resist before or after exposure includes a heating plate for heating a wafer which is placed on the heating plate, a light intensity detecting apparatus for irradiating light on the wafer to detect intensity of reflected light from the resist on the wafer, and a control section for controlling heating performed by the heating plate on the basis of the detected intensity of reflected light so that heating amount applied to a plurality of wafers becomes constant. Accordingly, the heating amount of the wafer can be controlled to be constant and variations in dimension of resist patterns can be reduced.